ACTUARIAL SOCIETY OF SOUTH AFRICA

EXAMINATION

16 October 2024

Subject F201 – Health and Care Fellowship Applications

Time allowed: *Three hours and twenty minutes (which includes five minutes for downloading and uploading your answer document)*

Total marks: *100*

INSTRUCTIONS TO THE CANDIDATE

Failure to adhere to any of these instructions could incur examination sanctions.

1. *Ensure that you are logged in and authenticated through Examity before you attempt the examination.*
2. *The question paper is only available in the ASSA Exam Platform as a PDF download and may not be printed. Copy/paste of questions or parts thereof is allowed from the question paper to your Word answer document only.*
3. *Download the Word answer document template from the ASSA Exam Platform. Save this Word answer document on your desktop using your Candidate Number as filename. Do not use your name and/or member number anywhere on your answer script.*
4. *You are required to submit your answers in Word format ONLY using this document. No answers in any other format (e.g., handwritten) will be accepted. Save work regularly.*
5. *Ensure that your Candidate Number appears in the "header" of your Word answer document. [Double-click on the header at the top of the Word document, input your Candidate Number only in the header, then press "Esc" to close the header.] Do not use your name or member number anywhere in your Word answer document.*
6. *You are allowed to access the material uploaded in advance to your personal open book file storage area on the ASSA Exam Platform. Remote access to materials is not allowed, e.g. any other application (incl. Excel), email, cloud storage, internet, LLMs (Large Language Models)/any AI tools or social media. Copy/paste from your uploaded material to your Word answer document is NOT allowed.*
7. *The use of Grammarly and Grammarly Premium or similar add-ins are not permitted in examinations. Microsoft Word spellcheck is allowed.*
8. *You are strongly encouraged to use the first 15 minutes as reading time only, however, you may start answering the paper whenever you are ready.*
9. *Mark allocations are shown in brackets.*
10. *Attempt all questions.*
11. *Show calculations where appropriate. You may use blank paper to carry out rough work calculations. You may use a calculator from the ASSA-approved list only.*
12. *Upload your Word answer document only into the ASSA Exam Platform. Once you have uploaded your document, you must click on **Finish Attempt** to save your document. You will still be allowed to go back and make changes (**Review Attempt**) if you have time.*
13. *Once you are satisfied with your uploaded document, click **Finish attempt** and **Finish all and Submit**. Once you have submitted you will not be able to make any changes.*
14. ***You must submit your Word answer document BEFORE the end of the allotted examination time.** You should stop writing and start uploading during the last five minutes. Take this into account when planning your review and submission. There will be no time announcements.*

Note: The Actuarial Society of South Africa will not be held responsible for loss of data where candidates have not followed instructions as set out above.
The onus remains on you to read and implement all examination instructions.

END OF INSTRUCTIONS

QUESTION 1

You are a Healthcare Actuary employed by the Council for Medical Schemes (CMS). The CMS has received the following five complaints from the South African medical scheme industry that require attention. Your input has been requested regarding each of these complaints from an actuarial viewpoint.

The five lodged complaints are summarised in the table below specifying the stakeholders involved.

Table 1 – Summary of Complaints Lodged to CMS

#	Complainant	Respondent	Complaint
1	Member A	Alpha Medical Scheme	Member A, a member of Alpha Medical Scheme, lodged a complaint regarding the scheme's refusal to continue funding her treatment (such as Enzyme Replacement Therapy, ERT) for a rare genetic condition (such as Gaucher's Disease). She was diagnosed with this condition in 1960 and commenced treatment in 2008, which was funded up until 2022. The scheme declined funding for her treatment in 2023, stating the following reasons: the member's condition is not a Prescribed Minimum Benefit (PMB) and is not life-threatening, ERT is not prevailing treatment in state practice and is therefore not eligible to be funded as a PMB level of care. Member A's condition is in fact a DTP-PMB (code 901K).
2	Member B	Beta Medical Scheme	Member B, a former member of Beta Medical Scheme, filed a complaint stating the unfair cancellation of her membership and a subsequent refund of contributions. Beta claimed non-disclosure of a prior medical condition as grounds for the cancellation. Member B, facing financial challenges, had a practice of cancelling and reinstating her membership as needed. The medical condition leading to the alleged non-disclosure was provided on a claim for a consultation that occurred during a previous period of cover. She indeed did not disclose this particular condition in her most recent membership reinstatement as Beta should have had this on record from the claimed consultation.
3	Industry Association	Pathology groups	The complainant, representing 35 medical schemes, lodged a complaint against the respondent, representing 3 large pathology practices, regarding excessive Covid-19 PCR test prices. A price point of R850 per Covid-19 PCR test was agreed at the start of the pandemic and was later reduced to R500 per test.
4	Medical Scheme Administrator A	Road Accident Fund	Administrator A lodged a complaint against the Road Accident Fund regarding the immediate rejection of all medical scheme claims for past medical expenses arising out of motor vehicle accidents.

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5	Medical Schemes as raised by an anonymous Whistle-blower	Hospital Group A	The complainant made allegations regarding fraudulent billing practices of the respondent. The allegations include manipulating patients' claimed conditions to carve out accounts that would normally be covered by alternative reimbursement models (ARMs), reverting to these accounts to being billed as fee for service, thereby aiming to avoid losses for the respondent. In addition, the whistleblower alleges that Hospital Group A had a practice of opening in-hospital accounts for deceased patients to bill for high-cost services not provided.

Using actuarial principles, discuss the arguments for and against the complainant and respondent of each case.

In your response, describe the potential actuarial implications considering themes such as benefit design, pricing, cross-subsidisation and sustainability.

[50]

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QUESTION 2

You are a consulting actuary to a restricted medical scheme client, Balance Medical Scheme (BMS). BMS is a traditional medical scheme with only one benefit option that provides comprehensive benefits.

The scheme contributions are based on a percentage of pensionable salary (15.0%) of the employee (or deemed income in the case of a pensioner). The first dependent is charged at 70.0% of the main member's contribution and the subsequent dependants are charged at 30.0% of the main member's contribution. The contributions are, therefore, based on the size of the family, i.e. Member, Member +1, Member +2, …, Member+5.

There is a minimum and maximum salary threshold used to determine contributions. Minimum salary threshold: R3,500 (i.e. anyone earning under R3,500 will have their contribution set based on this minimum) and maximum salary threshold: R24,000.

Contribution increases for the Scheme aim to align with the historic salary increase date of 1 September of each year.

The Trustees have been asked to change the contribution structure from one based on the size of the family i.e. Member, Member+1, Member+2.., Member+5 to the more commonly encountered Principal, Adult and Child ("PAC") structure with income bands at the time of benefit review for the next benefit cycle starting on 1 January. The trustees intend to retain the income banded structure of the contributions.

i. Discuss how you would determine the relevant contributions under the new structure and assess the impact on members, including all the assumptions and information you would need.

[10]

ii. Explain the advantages and disadvantages of this change to the scheme and the membership.

[5]

The scheme decided to move to the PAC structure. The employer increased salaries by an average of 5.0% and backdated a salary adjustment of 1.0% from June 2022. After considering its strong solvency due to the Covid-19 pandemic, the scheme decided not to impose an additional contribution increase for 2022 over and above salary increases. The sub-limits and salary thresholds have, however, been increased by 5.0%. Many members have complained to the Scheme that their contributions have in fact increased by more than the 5.0%.

iii. Explain to the various parties why and how this may have happened. Your answer should include the process for the scheme to determine the contribution increase.

[15]

A group of influential professionals (the engineers) employed by the employer have approached the human resources department executive and complained that they feel that they are paying too much for their scheme coverage. The group has an average age of 32 and comprises 25.0% of the scheme population.

The employer and scheme have approached you to help address these individuals' complaint.

iv. Describe in detail what solutions are possible and provide a high-level indication if this could meet the expectations of the group.

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END OF EXAMINATION

